

Vegetable -Matters-of- Fact

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POTATO



Know-how for Horticulture™



Late Blight of Potatoes

Look for:

- Circular dark brown/black water-soaked and greasy lesions
- Fine downy (cobweb-like) threads at the edge of lesions
- Black-purplish lesions girdling the stem
- An acrid (sharp/biting) odour

LATE BLIGHT SYMPTOMS



- Late blight of potatoes (caused by *Phytophthora infestans*) is a plant disease that affects stems, leaves, and tubers of potatoes.
- Late blight usually occurs mid-season, has been relatively easy to manage and to date has not been a major threat to the Australian potato industry.



Early blight (*Alternaria solani*)



Alternaria brown spot (*A. alternata*)



Aerial stem rot (*Erwinia carotovora*)



White mould (*Sclerotinia sclerotiorum*)



Blackleg (*Erwinia carotovora*)



Grey mould (*Botrytis cinerea*)

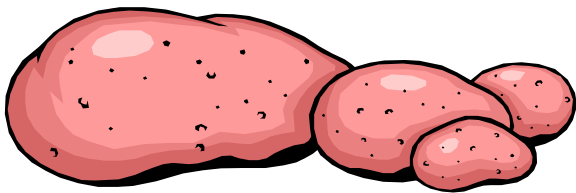
OTHER POTATO DISEASES THAT LOOK LIKE LATE BLIGHT

What is late blight?

Late blight has been observed in many potato growing regions of Australia, but recently has been restricted to districts on the north coast of Tasmania, Victoria (Gippsland, Central Highlands), and the Mt Gambier area of South Australia.

Outbreaks are weather-dependent, sporadic (not every year) and localised. The disease typically develops during periods of still, warm and humid weather over mid-January to late-February, under conditions that cause the foliage to remain wet (heavy dew or light rain). Outbreaks are more common on the north coast of Tasmania, where these conditions occur every season.

Typical summer conditions of warm, dry and windy weather quickly dry out late blight lesions, even under irrigation.



For more information and for a copy of the 'Grower guide to late blight' please contact: Jacky Edwards at DPI-Knoxfield 03 9210 9222 HAL Project PT04010

Symptoms

Lesions first appear on the leaves as small pale water-soaked patches with tiny irregular necrotic (black) flecks, usually starting near the tips or edges. The lesions then enlarge into a circular shape, becoming dark brown to black, water-soaked or greasy in appearance, with a dry necrotic centre. White cobweb-like chains of spores may appear at the edges of the lesions (especially on the underside of the leaf). Stem symptoms of late blight are usually superficial, appearing as black-purplish lesions girdling the stems

Leaf symptoms can be confused with those of grey mould and early blight. Early blight lesions are restricted by leaf veins and become angular in shape. Blight caused by *Botrytis cinerea* becomes covered with thick grey velvety growth.

A badly infected potato field has a distinctive acrid odour resulting from the rapid breakdown of potato leaf tissue. A similar odour may occasionally be detected after chemical vine-kill or a severe frost. At first glance the symptoms in a severely affected crop may be similar to fertiliser burn, frost, waterlogging or high soil temperatures.

To minimise the risk of late blight:

- Use certified seed
- Control cull piles and old potatoes sprouting in bins (treat them with herbicide and burn/deep bury them if possible)
- Destroy volunteer potatoes
- Implement an on-farm biosecurity (hygiene) plan
- Use resistant cultivars if possible
- Rotate crops
- Consider implementing a preventative spray program if you are in a high risk area and discuss options with your local agronomist and/or chemical reseller.

Suggestions for dealing with an isolated outbreak of late blight:

Identify the disease

Confirm: consider sending a sample to your local diagnostic service to confirm that it is late blight
DPI, Crop Health Services (03) 9210 9356

Treat: the affected and surrounding crops with a fungicide registered for late blight on potato, discuss options with your local agronomist and/or chemical reseller. Where only a few plants are affected, rogue them out.

Minimise further spread by cleaning and disinfecting all machinery and gear used in the paddock.

Delay: Consider delaying harvest until all the vines have been dead for 2-3 weeks and the tuber skins are mature.

Monitor the affected crop and all associated crops (any crops that surround the affected crop or have had any association with the affected crop through shared machinery, gear and seed).

Plan: develop a management plan for the following season to minimise future late blight outbreaks.

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Check us out and view our other fact sheets:

<http://www.dpi.vic.gov.au/vegcheque>

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